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THE SCHOOL REVIEW

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OUTLOOK NOTES

PEDAGOGY has been humble all its days; never able to stand alone, it has cast about for something to stand on, and the only thing it has found has been psychology. Yet after all actual schoolroom practice has only very remote relations to any psychological theories

THE INDIVIDUAL
vs.
THE MACHINE

The theory and the practice of education have always been closely related, that is, they have been universally found between the covers of the same book, in separate sections; but they have mixed like oil and water. So far from teachers having any abnormal hankering after psychology, they are rather inclined to an amused toleration in its patronizing presence, when they cannot run away. If, as has been wittily if not wisely said, the chief business of education is to make bad men out of good babies, psychology has to bear only a very small part of the reproach. What we as secondary teachers really want is to get at a knowledge of our boys and girls. We are trying to teach Mary algebra, sometimes without knowing much algebra, and generally without knowing much Mary. Jacotot made a gallant attempt to deliver us from the servitude of a knowledge of algebra even, claiming that he could teach what he did not know quite as well as what he did—which may have been true for Jacotot but has been finally abandoned as a sound working theory for teachers who need reflection. We

have made up our minds to do with the algebra or Latin, but we have not yet sufficiently established the standing of John or Mary. We are only just beginning to recognize the fact that we need to know John and Mary well at all, and we have only the vaguest kinds of notions as to the kind of knowledge of them that will be helpful, or how to go about getting it. In this emergency we turn to our old master, or despot, psychology, for help. The answers that psychology has for pedagogical riddles are always general answers. It can establish laws that will fit the average boy or girl pretty well, and so give us a working basis, and a standard of comparison. In regard to the special period under consideration, the period covered by the secondary school more nearly than by any other institution, the period we so vaguely and complacently define as adolescence, psychology has yet to offer, no doubt, many helpful suggestions. But it is not to psychology in any strict sense that we look so much as to the metaphysics, the psychophysics, the physiology and the sociology of adolescence. We wish to know this period, and we shall need all the help that we can get. Huxley says that if we wish to know how a crayfish feels we must be a crayfish. We are in a better position to study boys and girls than crayfish, for we at least have been boys or girls, most of us at any rate. Still reminiscence is very delusive, for we inevitably project some of our maturity back into our youth when we undertake to investigate that youth. We need all the help we can get, then, and after getting all that the doctors and the books have for us we have still to study the individual specimens that come into our fields with the most painstaking and sympathetic care.

What we need, in a word, is the application of all the methods that go under the name of child-study to the adolescent period. Child-study has been so far pretty much infant psychology or the study of good babies before the teachers had had a chance to make them bad. If we can get the scientific point of view we shall cease to look upon unusual children as pests pure and simple, and come to regard them rather as interesting cases to be observed and studied. As it is now we are rather apt to give our time less grudgingly to the study of a rare caterpillar than

to the study of an unusual child. We may, perhaps—and why should we not?—come to keep case books, just as the physicians, and possibly we may some of us live to see the day when a teachers' meeting may be largely occupied in the presentation and discussion of unusual and interesting cases, just as is done now in medical societies. This suggestion is at the service of program committees.

This movement will, I think, be just in time to counteract the most dangerous tendency in our schools today, a tendency which we all recognize, but one which is so insidious in its danger that it is continually getting the better of us. I refer to the tendency to make school-teaching one of the mechanic arts. We have been devoting ourselves so exclusively to organizing and systematizing, we have dealt so much with "courses of study" and "thousands of children" that we have unconsciously let the notion get hold of us, more or less, that the school is an *officina humanum*, a manufactory of men. Given so much raw material—and it is good form to consider the material very raw indeed—by putting it all through a certain set of machines, commonly called grades, we produce at the end a certain quantity of finished product, ready for the market of the world. The material according to the plan on which the factory is organized and run is all alike, and so is the product to be. If there happen to be any little irregularities in the material so that parts of it do not run easily and systematically through all the rollers, those troublesome parts must be put back and run over again or thrown out. The finished product is apt to be described by our legislators as good citizens. But a difficulty arises at once in the unfortunate fact that all citizens are not good. If our people were as logical as the Chinese we should be in great danger, for those simple people, who hold that all men are good at birth, also are said to hold the teacher responsible for the sins of the pupil, and if the pupil kills his father they hang the teacher. I am not inclined to think anyone in particular to blame for this state of affairs. We have occupied ourselves with organization because we have been forced to do so. There were no problems of educational organization until this century. There was so

little education that it was not worth organizing. What schools there were were small affairs. The great contribution of this century to civilization has been universal free education, the adoption of which in practically every civilized country has made the schools the greatest of all our civil institutions in numbers and cost. We have had a gigantic work to do, and it is not yet completed. But just so soon as we forget for a moment that all this machinery, all these teachers, all these books, all methods exist solely for the good of the smallest child in the poorest school, so soon as the greatness and glory of the machine prevents it from serving the humblest of these little ones and offering to each the best opportunities for development, so soon were it better for the whole tremendous fabric that it had a sufficiently large millstone about its neck, and that it were cast into the deepest depths of the sea. The great educational problem of the future is to be how to secure to every child in the schools his inalienable right to life, liberty, and the pursuit of happiness. Just now there is too much homeopathy in the schools. What causes will cure, so if a pupil's lack of interest and general disgust with school life is apparently caused by Latin we will cure him by giving him more Latin; if mathematics is his special pet aversion, and it is obvious to common sense that he has not a fragment of a mathematical mind, we must give him more mathematics so as to remedy nature's little sin of omission; on the same principle that if a boy's stomach is disordered by too lavish indulgence in cheese we will give him to cure him nothing but cheese three times a day for a fortnight. We have always known that the greatest element in good teaching is tact, and that lack of tact was really the unpardonable sin in a teacher. But what is tact but the skill to understand others, to get their point of view, and is it not founded upon careful observation of others? Tactful teachers have always studied their pupils, though they may have had no special method of doing it, and may have done it unconsciously. In the future by making such pupil-study systematic and general we may hope at least to increase indefinitely the sum total of pedagogical tact in the world to the lasting benefit and happiness of our boys and girls.

Many there be who practice without any theory, more still who theorize endlessly without doing anything. It was a great and good piece of theorizing to get out the report of the Committee on College Entrance Requirements, to which no one will question the important and invaluable service rendered by the chairman; but now Dr. Nightingale goes further and inaugurates the first great movement that has come to our notice in the high schools looking toward the realization in practice of the sound doctrine of the report. The Chicago high schools have had and now have a good program of studies, but the superintendent takes a new position in advance in proposing the following:

**PROGRESS
IN
CHICAGO**

CHICAGO HIGH SCHOOLS

PROGRAM OF STUDIES UNDER CONSIDERATION

WITH data for making the work of the high school more elastic, more practical, and better adapted to the needs and aptitudes of the individual pupil.

Languages.—English, Latin, French, German, Spanish, Greek.

Mathematics.—Elementary algebra, plane geometry, higher algebra, solid geometry, trigonometry.

History.—Mythology, ancient history, mediæval and modern European history, English history, American history and civics.

Sciences.—Physical geography, physiology (as required by law), biology (zoölogy and botany), physics and chemistry, geology and astronomy.

Commercial.—Commercial geography, commercial law, commercial arithmetic, bookkeeping, stenography, typewriting, economics.

Miscellaneous.—Drawing, vocal music, physical culture, manual training (one year) wherever practicable, and household science (sewing and cooking) wherever practicable.

Pupils may make a judicious selection from the foregoing studies, with the advice and approval of parents and principal, except that the study of the English language and literature shall be required of all pupils one half of the curriculum.

Pupils will not be allowed to take a study which is a natural sequence of one which has not been successfully pursued.

A complete curriculum shall consist of three thousand hours of successful work; *e. g.*, a study pursued five times a week for one year will constitute two hundred hours; one pursued twice a week for one year will constitute eighty hours.

No credit will be given for a study which would generally occupy a year until such study is completed.

When a curriculum is completed the pupil will be entitled to a diploma, which shall state the studies pursued and the length of time each has been taken.

If a pupil completes a curriculum and receives a grade of "excellent" in each of the studies, such pupil will be admitted to the normal school without further examination.

Other pupils who are desirous of entering the normal school to prepare for teaching shall be examined in a full course of English, a two years' course in some foreign language, two courses in history, part of which shall be United States history and civics, two courses in mathematics, two sciences, each of which shall cover work assigned to one year, and in drawing, vocal music, and physical culture.

Opportunities will be given for preparation for any college or technical school, if a desire for such preparation is made known early in the curriculum, or not later than the beginning of the second year.

The program of studies will be so arranged that difference in the capacity, application, and health of pupil will be considered. Those of good health and unusual ability will be enabled to complete a curriculum in less time than those whose health or capacity make it wise for them to proceed more slowly.

Pupils entering the first year will not be expected to take more than one foreign language, unless able to enter an advanced class in the second language. No pupil will be allowed to pursue a study which is in advance of his attainments.

In schools of five hundred pupils or less no class will be organized with less than fifteen pupils, and in schools of over five hundred less than twenty pupils.

The maximum number in any class shall not exceed forty, except in extraordinary cases.

Whenever a pupil or class of pupils shall have completed the course in any study in less than the average time assigned to that study, such pupil or pupils shall receive the full benefit of the time saved; and whenever pupils require or take more than the average time, such time will not be credited in the total number of hours required for the completion of a curriculum.

The daily marking system will not be required nor used, except as a matter of special convenience in special cases.

The result of occasional tests, written or oral, together with the unbiased judgment of the teacher, with the approval of the principal, shall constitute the basis upon which proficiency is reckoned.

Parents or guardians will be informed once in two months, or oftener, as occasion may arise, when pupils, by reason of lack of health, capacity, application, or other cause, do not do satisfactory work, and a request made for a conference, for the purpose of lessening the number of studies, changing

them, or in other ways arranging to make the school profitable to the pupil.

Principals will arrange programs and classes so that the brighter pupils may not be unduly hindered in their progress, nor others impelled to advance more rapidly than their health, application, or ability will permit.

No explanation is needed to show to secondary teachers the merits of this program. It is an evidence of their discernment that the principals of the sixteen high schools in Chicago have voted with practical unanimity for its adoption. The plan is now under consideration with every indication that it will be found in full operation at the beginning of the next school year. The significance of such a step to Chicago and to secondary education generally can hardly be overestimated.

C. H. THURBER